

As for *Eukrania*, it bases its claims to recognition on its "herbaceous" habit and the presence of a small dorsal horn on the petals.⁴ In several characters it is intermediate between *C. florida* and the ebracteate dogwoods.

I do not know what we are to understand by such expressions as "an aggregate of generic elements." They may signify that *Cornus* (sensu lato) is polyphyletic, distinct genera having been merged; or that an original stock has become diversified. The latter seems more plausible. Certainly in our ignorance of the history and cytogenetics of the group the burden of proof must fall on him who expounds a polyphyletic origin; present judgment seems premature. If they are really as closely related as they seem to be, I see nothing to be gained by segregating in distinct genera the seven (not five) recognizable sections of *Cornus*.

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Phyllanthus nummulariaefolius Poir. in the United States

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About five years ago correspondents in Brazil and the Panama Canal Zone sent me seeds of an undetermined species of *Phyllanthus* which they described as a polymorphous and aggressive weed. I planted these seeds in a hothouse, grew out of them a sizable crop of specimens and satisfied myself that *P. nummulariaefolius* Poir. was the entity that had been collected. This plant has proved to be as aggressive and as polymorphous in the hothouse as it has been reported to be in nature, and I must now carefully eradicate it several times a year. The size of the specimens varies from a few inches tall, when the plants happen to grow on a dry bench, to about three feet for material favored by good conditions of soil and temperature.

Pressed specimens of the same plant have also reached me from Argentina, Brazil, Panama and the French West Indies, showing that it is widespread in every one of the tropical American coun-

⁴ Rydberg (l.c.) said on the sepals; surely an error.

tries bordering upon the Atlantic Ocean. In no case has the material thus sent proved to be correctly determined, being usually mislabelled as *P. Niruri* L. or *P. lathyroides* H.B.K. These mis-determinations are not always excusable because *P. nummulariaefolius* not only manifestly differs from both those species and their nearest allies, but represents in the American flora a type of vegetation that has no immediate relatives. Its affinities are African and Asiatic.

Léandri, who has contributed several specimens to our herbarium and has extensively collected this weed in its endemic range, that is, Madagascar and the adjacent islands, is the author of a critical study (in Lecomte Not. Syst. 7[4]:168-169, 171-172, 1939). Here, he stresses the impossibility of using the relative size of the leaf and the length of the fruiting pedicel to separate, even trinomially, the many polymorphous aspects of the species. Léandri treats *P. tenellus* Roxb. as a synonym of *P. nummulariaefolius*, a disposition which is fully justified by the material of the latter which I have seen in the Kew Herbarium, part of which at least was seen by Hooker when preparing the classic illustration of *P. tenellus* (in Hook. Icon. 16: Pl. 1569. 1887). It is quite evident that *P. minor* Fawcett (in Jour. Bot. 57:65. 1919) is a synonym of *P. nummulariaefolius*, from which Fawcett attempts to separate it on the basis of minor vegetative characters. An isotype of *P. minor* in the herbarium of the N. Y. Botanical Garden, *Harris 12123*, fully matches specimens of *P. nummulariaefolius* such as grow in moist and shady situations in a hothouse. I believe, moreover, that Lanjouw is justified in suggesting (in Rec. Trav. Bot. Néerl. 31:452. 1934) that *P. corcovadensis* Muell. Arg. is a synonym of *P. nummulariaefolius* and an African weed introduced into America. I have not yet seen authentic material of Mueller's species, but its description and illustration (in Martius Fl. Bras. 11[2]:30, Pl. 6 ii. 1873) apply to no other plant better than to Poirret's *Phyllanthus*.

Rio de Janeiro apparently was the original point of introduction of this noxious weed into America, having been brought there probably by ships sailing in colonial times between Mauritius and Brazil. I may note that this is not the only record of an introduction of the kind. *Euphorbia spathulata* Lam., the holotype of which I have seen, is supposed to be endemic to the Plata regions of

Argentina, but is altogether alien to the native flora of South America, and it so well matches *E. dictyosperma* Fisch. & Mey. and the minor segregates in its vicinity as to suggest that the alleged Argentina endemic is but the North American weed, introduced in the regions of the Plata before 1780. It is characteristic that Norton lists (in Rept. Mo. Bot. Gard. 11:104. 1900) a *Moyer* specimen from Montevideo under *Euphorbia arkansana* Engel. & Gray var. *missouriensis*.

In view of the widespread range and of the aggressiveness of *P. nummulariaefolius* I have been looking forward to finding it recorded within the continental limits of the United States somewhere along the coast between Texas and the Carolinas. My anticipations have been only very recently fulfilled by the finding of two specimens in the herbarium of the N. Y. Botanical Garden, namely: *Moldenke 181*, Orlando, Fla., 1929, and *Rapp 3*, Sanford, Fla., 1932, which unmistakably belong to this species. So far, I have seen no other specimens collected in the United States and accept, consequently, *Moldenke 181* as the first record of *P. nummulariaefolius* for the flora of the United States, exclusive of its territories and dependencies.

Phyllanthus lathyroides is reported by J. K. Small for Florida (Man. Southeast. Fl. 778. 1933), but he does not mention either *P. nummulariaefolius* or its synonyms, *P. tenellus* and *P. corcovadensis*. Since the *Moldenke* and the *Rapp* records have been originally misdetermined as *P. lathyroides*, and the former has certainly been seen by Small when at work on the Manual, I suspect that the record of *P. lathyroides* in Small's work is based upon a mis-determination. I have not seen material of *P. lathyroides* from Florida, but this species is likely to have been introduced there, and Small may thus have seen authentic specimens which are now not preserved in the herbarium of the N. Y. Botanical Garden. He, at any rate, failed to record *P. nummulariaefolius*.

Taxonomists who are interested in learning how to distinguish *P. lathyroides* from *P. nummulariaefolius* should study actual specimens rather than rely upon the compilations and the colorless descriptions so frequently found in the literature. The two species are quite distinct and excellent material of both is preserved in the herbarium of the N. Y. Botanical Garden. The following specimens represent *P. lathyroides* in that herbarium: (1) *Britton*,

Britton & Brown 6995, Portorico; (2) *Britton & Boynton 8201*, Portorico; (3) *Duss 47*, Martinique, French W. I., and are true to the isotype which I have seen in the Parisian Museum.

Phyllanthus nummulariaefolius (= *P. tenellus* Roxb.; *P. corcovadensis* Muell. Arg., syn. nov.; *P. minor* Fawc., syn. nov.) is represented by the following collections: (1) *Ball s.n.*, 1882, Tijuca, Rio de Janeiro, Brazil; (2) *Duss 2442-3557* [duplicate sheet], Guadeloupe, French W. I.; (3) *Harris 12157, 12208, 12123* [three sheets, including isotype of *P. minor*], Jamaica.

The best characters of identification of *P. nummulariaefolius* from *P. lathyroides* and the species or forms in the latter's vicinity (e.g., *P. diffusus* Kl., well represented by: *J. S. De La Cruz 3662*, British Guiana, in the herbarium of the N. Y. Botanical Garden) are the following: (a) *Shape of the leaf*. In *P. nummulariaefolius* the leaf, regardless of its size, is more or less gradually narrowed from the center towards the extremities, being ovate to obovate. In *P. lathyroides* and *P. diffusus* the leaf is essentially elliptic, with the sides tending to run more or less parallel. (b) *Length of the pedicel*. In *P. nummulariaefolius* the pedicel, especially that of a fruiting flower, is subcapillary but stiffly produced, always manifestly elongate. In *P. lathyroides* and *P. diffusus* the pedicel is much shorter. In *P. niruri* the pedicel is very short, so that the female flower can here be described as subsessile. (c) *Size of the lobes of the calyx of the female flower*. In *P. nummulariaefolius* the lobes are small, narrowly triangular-acuminate, showing like a minute "star" at the tip of the pedicel. In *P. lathyroides* the lobes are definitely large and subpetaloid. In *P. diffusus* and *P. Niruri* the lobes are much smaller than in *P. lathyroides* and thus tend to approach the size if not the shape of those of *P. nummulariaefolius*, but the length of the pedicel is much shorter, as noticed above.

The seed furnishes good characters of determination in *Phyllanthus*, but only mature seeds can be usefully compared for critical identifications and it is unfortunate that there are all too few specimens in herbaria which have a complement of seeds fit to be used. The vegetative characters listed above will be found adequate, I believe, at least for provisional determinations.

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